

CIAOCI      Newsltr 041-75  
Notes on Methodology      10 Sep 75

OUO      1 of 1  
No. 41

# OCI

## Notes on Methodology

OFFICIAL USE ONLY

Newsletter No. 41  
September 10, 1975

321

### THE OCI UNITED NATIONS VOTING FILE

The UN Voting File is now available for use by any OCI analyst. The file is a set of computer programs that permit rapid retrieval and comparison of the voting records of any UN member nation or any group of nations. The data contain the recorded votes in every General Assembly from 1946 to 1974.<sup>1</sup> Response time is "same day": printed answers to most queries can be expected within 1-3 hours.

The system can provide answers to simple reference questions such as the specific vote of a nation on a certain issue. Analysts may also use it to determine the votes of the entire membership on a certain issue.

The UN Voting File can be used to chart the rate of agreement between any two nations over a specified time period. For example, an analyst may wish to compare the degree to which Yugoslavia and the USSR voted together between 1965-1970. The system computes this on a yearly basis as shown in Figure 1.<sup>2</sup>

If greater detail is required, the system prints a listing that describes each resolution and the voting position of the two nations. A sample of this listing is shown in Figure 2, which is a comparison of Yugoslav and Soviet positions in 1958. Interpret the headings on the listing this way:

DATE:      Date of the vote by year and month.

OFFICIAL USE ONLY

Figure 1

COMPARISON OF YUGOSLAVIA AND USSR, 1965-1970

YEARLY LISTING OF RICE-BEYLE INDEX OF VOTING COHESION

RICE-BEYLE INDEX OF VOTING COHESION FOR 1965.....	89.29
RICE-BEYLE INDEX OF VOTING COHESION FOR 1966.....	89.62
RICE-BEYLE INDEX OF VOTING COHESION FOR 1967.....	88.16
RICE-BEYLE INDEX OF VOTING COHESION FOR 1968.....	76.42
RICE-BEYLE INDEX OF VOTING COHESION FOR 1969.....	90.91
RICE-BEYLE INDEX OF VOTING COHESION FOR 1970.....	79.85

Figure 2

UNITED NATIONS VOTE SUMMARY FOR YUGOSLAV AND USSR

COMPARISON OF YUGOSLAVIA AND USSR, 1958

DATE	RES NO	YUGOSLAV	USSR	<SUBJECT>	<WHERE>	<EPISODE>
5809	0	NO	NO	TERRIT	PLENARY	EWB
5809	1239	YES	YES	MEMBER	PLENARY	EWB
5809	1239	YES	YES	ADMINI	PLENARY	EWB
5809	1239	NO	NO	MEMBER	PLENARY	EWB
5809	1239	NO	NO	MEMBER	PLENARY	EWB
5809	1239	NO	NO	MEMBER	PLENARY	EWB
5810	0	YES	YES	ECCASS	PLENARY	NAO
5810	1245	YES	YES	REFUGE	PLENARY	AFN
5810	1248	YES	YES	CIVILR	PLENARY	AFN
5810	1248	YES	YES	CIVILR	PLENARY	AFN
5810	1248	YES	YES	CIVILR	PLENARY	AFN
5810	1248	YES	YES	CIVILR	PLENARY	NAO
5810	1248	YES	YES	CIVILR	PLENARY	AFN
5810	1248	YES	YES	CIVILR	PLENARY	AFN
5811	1252*	ABS	NO	ATOMIC	PLENARY	EWU
5811	1252	YES	YES	ATOMIC	PLENARY	EWU
5811	1263*	YES	NO	BUDGET	PLENARY	MES
5811	1264*	ABS	NO	TERRIT	PLENARY	EWK
5812	0*	ABS	NO	MEMBER	PLENARY	NAO
5812	1302	YES	YES	CIVILR	PLENARY	AFI
5812	1307	YES	YES	TREATY	PLENARY	SEA
5812	1307	YES	YES	TREATY	PLENARY	SEA
5812	1312	NO	NO	CIVILR	PLENARY	EWB
5812	1317	YES	YES	INDDEV	PLENARY	NAO
5812	1318*	ABS	NO	TRADE	PLENARY	NAO
5812	1318	YES	YES	TRADE	PLENARY	NAO
5812	1351*	YES	NO	BUDGET	PLENARY	NAO
5812	1348*	ABS	NO	SCIENT	PLENARY	NAO
5812	0	ABS	ABS	COLIND	PLENARY	MEA
5812	0	NO	NO	COLIND	PLENARY	MEA
5812	0	YES	YES	COLIND	PLENARY	MEA

NOTE: \* = VOTE DIFFERENTLY

\*\*\* = A MEMBER BUT DIDN'T VOTE OR ABSTAIN

\*\*\* = NOT A UN MEMBER AT TIME OF VOTE

RICE-BEYLE INDEX OF VOTING COHESION = 85.48

OFFICIAL USE ONLY

RES. NO: UN resolution number when such a number is assigned.

YUGOSLAV: Voting position of Yugoslavia.

USSR: Voting position of the USSR.

SUBJECT: Subject code based on the UN's own classification system (Colonial, Legal, etc.). A complete list of the subject codes can be found in the Appendix.

WHERE: Type of session in which the vote took place (plenary, 1st Committee, etc.).

EPISODE: Episode code. Some resolutions are related to international events, such as Chinese membership in the UN, or to specific geographic areas. A complete list of the Episode codes can be found in the Appendix.

It is also possible to include a short abstract of each vote. An example of the abstracts is shown in Figure 3 on the following page.

The UN Voting File also can measure the cohesiveness or solidarity exhibited by a group of nations. The user may specify one of six pre-defined groups or he may select a set of nations of his own choosing.<sup>3</sup>

For example, an analyst may wish to determine whether the Group of 77--the caucus of developing nations--votes as a solid bloc on all issues or tends to show solidarity only on certain kinds of issues. As shown in Figure 4, the listing printed in response to such a query shows first the voting outcome for each resolution, with the distribution of votes for the entire membership (TOTAL VOTE). The next line is a series of codes describing the resolution. The EPISODE, WHERE, SUBJECT, and DATE

Figure 3

## UNITED NATIONS VOTE SUMMARY FOR YUGOSLAV AND USSR

DATE	RES NO	COMPARISON OF YUGOSLAVIA AND USSR, 1958		<SUBJECT>	<WHERE>	<EPISODE>	
		YUGOSLAV	USSR				
5809	0	NO	NO	TERRIT	PLENARY	EWB	RECOM INCL OF ITEM 69 ON QUES OF HUNGARY IN AGENDA.(GAOR-13-55)
5809	1239	YES	YES	MEMBER	PLENARY	EWB	REJECT INDIA PROPOSAL TO INCLUDE ITEM ON CHINA REPRESENTATION IN UN.(GAOR-13-106A)
5809	1239	YES	YES	ADMINI	PLENARY	EWB	AMEND DELETING PARA 2 WHICH DECIDES NOT TO CONSIDER PROPOSALS TO EXCLUDE NATIONALIST CHINA OR SEAT RED CHINA IN UN.(GAOR-13-106B)
5809	1239	NO	NO	MEMBER	PLENARY	EWB	PARA 1 OF RECOM REJECTING INDIAN REQUEST TO INCLUDE ITEM ON CHINA REPR.(GAOR-13-106)
5809	1239	NO	NO	MEMBER	PLENARY	EWB	PARA 2 OF GEN COMTE RECOM (A/3926), TO IGNORE ANY FURTHER PROPOSALS ON REPR OF CHINA IN THIS SESSION.(GAOR-13-107A)
5809	1239	NO	NO	MEMBER	PLENARY	EWB	GEN COMTE RECOM ON(A/3926) CHINA REPR.(GAOR-13-107B)
5810	0	YES	YES	ECOASS	PLENARY	NAD	MBRS OF GOV COUN OF SPEC FUND FOR ECON ASST TO UNDER -DE V STATES TO BE ELECTED FROM UN MBRS OR SPEC AGENCIES (GAOR-13-387)
5810	1245	YES	YES	REFUGE	PLENARY	AFN	OP PARA 3 OF 4TH COMTE RES (A/3959) ON S W AFRICA; EXPRESSES DEEP CONCERN OVER CONDITIONS IN S W AFRICA.(GAOR-13-410)
5810	1246	YES	YES	CIVILR	PLENARY	AFA	S AFRICA TO OBSERVE CHARTER OBLIGATION CONCERNING APARTHEID POLICIES.(GAOR-13-412)
5810	1248	YES	YES	CIVILR	PLENARY	AFA	NEED FOR LEGISLATION & PRACTICE TO ENSURE PEACE, HARMONY & MUTUAL RESPECT OF RTS IN MULTI-RACIAL SOCIETY.(GAOR-13-413A)
5810	1248	YES	YES	CIVILR	PLENARY	AFA	RES(A/3962) PARA 2 AFFIRMS INCONSISTENCY OF DISCRIM POLICIES OF MEMBER STATES.(GAOR-13-413B)
5810	1248	YES	YES	CIVILR	PLENARY	NAC	PARA 3-UN MBRS TO CONFORM TO CHARTER OBLIGS CONCERNING HUMAN RTS & FREEDOMS.(GAOR-13-413C)
5810	1248	YES	YES	CIVILR	PLENARY	AFA	RES(A/3962) PARA 4 REGRET AT S AFRICA DISREGARD OF APPEALS FOR CHANGE OF APARTHEID POLICY.(GAOR-13-413D)

NOTE: \* = VOTE DIFFERENTLY

\*\*\* = A MEMBER BUT DIDN'T VOTE OR ABSTAIN

\*\*\* = NOT A UN MEMBER AT TIME OF VOTE

OFFICIAL USE ONLY

Figure 4

\*\*\*\*\*SUMMARY OF UNITED NATIONS VOTING ISSUES FOR 1970\*\*\*\*\*

COHESION OF THE 77 ON AFRICAN COLONIAL ISSUES

RESOL# 2703 TOTAL VOTE YES NO ABST ABS TOT  
TOTAL VOTE % = 66.9 8.7 9.4 15.0

<EPISODE> <WHERE> <SUBJECT> <SERIAL> <DATE> <TYPE>  
AFP PLENARY 41COLIND 100 7012 SUBSTANT

GROUP POSITION ON THIS VOTE FOR GROUP OF 77

YES NO ABST ABS  
GROUP VOTE = 71 0 3 16  
GROUP VOTE % = 78.9 0.0 3.3 17.8

LEVEL OF SOLIDARITY.... 89.4%

GROUP COUNTRIES VOTING 'NO'  
LATIN AMER.  
ASIA.....  
EUROPE.....  
AFRICA.....  
MIDDLE EAST

GROUP COUNTRIES ABSTAINING  
LATIN AMER. BRAZIL  
ASIA.....  
EUROPE.....  
AFRICA..... GADON MALAWI  
MIDDLE EAST

GROUP COUNTRIES VOTING 'YES'  
LATIN AMER. ARGENT I BARBADOS CHILE COLOMBIA CUBA DOM REP ECUADOR GUATEMAL  
GUYANA HAITI HONDURAS JAMAICA MEXICO NICARAG PANAMA PARAGUAY  
PERU TRIN/TOB URUGUAY VENEZUEL  
ASIA..... BURMA CAMBODIA CEYLON INDIA INDONESIA LAOS MALAYSIA NEPAL  
PHILIPP SINGAPOR THAILAND  
EUROPE..... YUGOSLAV  
AFRICA..... BURUNDI CAMEROON CENT-AFR ZAIRE EQ-GUINE ETHIOPIA CAMBIA GHANA  
GUINEA IVORY CO KENYA LIBERIA MALAGASY MALI MAURITAN MAURITIS  
NIGER NIGERIA SIERRA L SOMALIA SUDAN TANZANIA TOGO UGANDA  
UP-VOLTA ZAMBIA  
MIDDLE EAST ALGERIA IRAN IRAQ JORDAN KUWAIT LEBANON LIBYA MOROCCO  
SAUDI AR S.YEMEN SYRIA TUNISIA EGYPT

GROUP COUNTRIES ABSENT  
LATIN AMER. BOLIVIA COSTA RI EL SALVA  
ASIA..... AFGHAN FIJI MALOIVE PAKISTAN  
EUROPE.....  
AFRICA..... BOTSWANA CHAD CONGO DAHOMEY LESOTHO RWANDA SENEGAL SWAZILAN  
MIDDLE EAST YEMEN

STATISTICS FOR YEAR 1970  
NUMBER OF VOTES PROCESSED = 8  
AVERAGE LEVEL OF SOLIDARITY FOR GROUP OF 77 ..... 89.31

OFFICIAL USE ONLY

codes are identical to those described above. SERIAL refers only to the identification number assigned to each vote. TYPE indicates whether a vote is procedural or substantive; the former usually is a vote on an amendment.

The program then prints the distribution of votes from the specified group (GROUP VOTE) and the percentages cast for each voting position (GROUP VOTE %).<sup>4</sup> The next figure (LEVEL OF SOLIDARITY) is a measurement of the cohesiveness of the group on this resolution.<sup>5</sup> The computer then prints the voting position of each nation. The program also computes the average solidarity for the group for each year.<sup>6</sup> It is also possible to include the abstract of each resolution, as in Figure 3. Finally, the system can provide assistance in conducting a statistical analysis of the voting behavior of certain nations. A variety of statistical programs already available on the OJCS system can be used for this.<sup>7</sup> To operate these programs for most applications, it is necessary to have data coded and keypunched on IBM cards, and even with only a moderate volume of data this process can take as long as two weeks.

To get around this delay, the UN Voting File has been programmed to enable producing a set of keypunched data cards in a format compatible with the statistical programs. This data set usually can be produced within 4-6 hours. As soon as the pre-punched program cards required for the desired statistical analysis are added, the program can be run.

Operation of the UN Voting File for other than such statistical analyses is not difficult. Posing a complex query rarely requires more than ten minutes of the user's time at the terminal on the OJCS interactive system. For example, the user may wish to examine the agreement between the USSR and Yugoslavia on Colonial subjects relating to Africa between 1965-1970. The user may also wish to look only at plenary votes, exclude procedural votes,

OFFICIAL USE ONLY

and obtain an abstract of each resolution. To obtain the answer to this query, the user must enter the following 10 statements:

COUNTRY1 = 'YUGOSLAV',  
COUNTRY2 = 'USSR',  
YR1 = '1965',  
YR2 = '1970',  
TITLE = 'COMPARISON OF YUGOSLAVIA AND THE  
USSR, 1965-70',  
SUBJECT\_GROUP (1) = '4',  
EPISODE\_GROUP (1) = 'AF',  
WHERE\_VOTE (1) = 'PLENARY',  
TYPE\_ISSUE = 'SUBSTANT',  
SEE\_ABSTRACT = 'YES';

The UN Voting File is operated by the Methods and Technology Staff in OCI. Requests for its use may be addressed to [REDACTED]

25X1A

25X1A

#### FOOTNOTES

1 The data file for this system was obtained from its originators: the US Naval Academy Political Science Department and the Office of Management Systems in the US Department of State. [REDACTED] of the Office of Joint Computer Services wrote the programs that operate the system at CIA.

25X1A

OFFICIAL USE ONLY



2 The formula used to measure the amount of agreement is known as the Rice-Beyle Index of Voting Cohesion:

$$IVC = \frac{f + 1/2 (g)}{t}$$

Where IVC = Index of Voting Cohesion

f = Number of votes in which both nations agreed

g = Number of votes where one nation abstained and the other voted either yes or no.

t = Total number of votes.

This formula distinguishes between complete yes-no disagreement and partial disagreement. Partial disagreement occurs when one nation abstains and the second votes yes or no. If this difference were not provided for, the same level of agreement would be obtained in cases as disparate as the following:

- (a) US votes yes on all issues, Cuba votes no on all issues. Percentage of agreement = 0.0 percent.
- (b) US votes yes on all issues, Mexico abstains on all issues. Percentage of agreement = 0.0 percent.

However, using the IVC formula above, the second case would reflect not total disagreement, but rather a partial agreement of 50%.

$$IVC = \frac{0 + 1/2 \times 1}{1} = 1/2 = 50\%$$

OFFICIAL USE ONLY

The Index of Voting Cohesion in Figure 2 was computed as follows:

$$\begin{aligned} f &= 24 & \text{IVC} &= \frac{24 + 1/2(5)}{31} = 85.48 \\ g &= 5 \\ t &= 31 \end{aligned}$$

3 The six pre-defined groups which may be selected by the analyst are: the Group of 77, the Nonaligned nations, Latin American nations, the Organization of American States, the Soviet and East European nations, and NATO.

4 There are now 105 members in the Group of 77, of which 99 are UN members. In 1970, there were 90 members of the Group of 77 who were also UN members.

5 The Level of Solidarity measures the degree to which the members of the group vote the "group position." This position is defined simply as the position receiving the most votes. If, for example, 45 nations voted "yes" and 30 voted "no," the group position would be "yes.") The formula is:

$$s = \frac{N + 1/2(a)}{t}$$

Where S = Level of Solidarity

N = number of nations who agreed completely with group position.

a = number of nations who agreed partially with the group position. Partial agreement occurs when the group position is yes or no and a nation abstains or is absent. Partial agreement can also occur if the group position is abstain and a nation votes yes or no.

OFFICIAL USE ONLY

t = total number of nations in the group.

To compute the Level of Solidarity displayed in Figure 4:

$$N = 72$$

$$a = 9 \text{ (abstentions)} + 11 \text{ (absent)}$$

$$t = 95$$

$$s = \frac{72 + 1/2 (9+11)}{95} = 86.3\%$$

6 Average solidarity is computed by summing the solidarity level for each resolution and dividing by the total number of resolutions.

7 The majority of these measures are found in the program package known as "Biomedical Computer Programs" developed at UCLA.

APPENDIX

SUBJECT CODES

1. POLITICAL

POLGEN = Political (General)  
DISARM = Disarmament and Weapons  
ATOMIC = Peaceful Uses of Atomic Energy  
TERRIT = Unification/Territorial Integrity (of Sovereign Nations)  
CIVILR = Internal Politics/Civil Rights  
PEACE = Peacekeeping (incl. Funding, Admin. Factfinding)

2. ECONOMIC

EOCOGEN = Economic (General)  
INDDEV = Industrial Development  
AGRICUL = Food and Agriculture  
ECOASS = Assistance  
TRADE = Trade

3. SOCIAL, TECHNICAL, CULTURAL

SOCGEN = Social (General)  
CULTUR = Social Cultural  
SCIENT = Scientific/Technical  
HEALTH = Medical/Health/Environment  
REFUGE = Humanitarian/Refugee/Human Rts.  
EDUCAT = Education

4. COLONIAL/TRUSTEESHIPS

COLGEN = Colonial Trusteeships  
COLIND = Reforms/Independence/Self-Determination  
COLRTS = Internal Civil Rights (in colonies)

5. UNO ADMIN AND FINANCE

ADMGEN = General  
BUDGET = Budgetary  
ADMINI = Administration  
MEMBER = Membership

6. LEGAL

LGLGEN = General  
INTLAW = International Court of Justice  
TREATY = Treaties/Legal Instruments  
INVETS = Investigations/Factfinding (not Incl. Peacekeeping)

EPISODE CODES

GROUP  
CODE

EW EAST-WEST CONFRONTATIONS

EWM MISCELLANEOUS  
EWB BALKANS (GREEK CIVIL WAR, HUMAN RTS, ETC.)  
EWC CUBAN MISSILE CRISIS  
EWU USA VS USSR (IDEOLOGICAL DIFFERENCES--COLD WAR)  
EWK KOREAN CONFLICT  
EWG CHINA GENERAL (POLITICAL QUES., TIBET SITUATION, ETC.)  
EWR CHINA UNITED NATIONS REPRESENTATION  
EWH HUNGARIAN CRISIS (USSR INVASION & AFTERMATH)  
EWS RELATIONS WITH FRANCO SPAIN

ME MIDDLE EAST CONFRONTATIONS (INCLUDE NORTH AFRICAN ARAB STATES)

MEM UN MEMBERSHIP  
MEP PALESTINE PARTITION/POLITICAL SOLUTION (CONCILIATION COMISN)  
MER PALESTINIAN REFUGEES (UNRWA)  
MEA ALGERIAN SITUATION  
MET TRUSTEESHIPS/COLONIAL/INDEPENDENCE (MOROCCO, TUNISIA)  
ME4 1948 WAR  
ME5 1956 WAR  
ME6 1967 WAR  
ME7 1973 WAR  
MEG GENERAL & MISCELLANEOUS

AM AMERICAS

AMM MEMBERSHIP (UN AND OTHER ORGANIZATIONS)  
AMT TRUSTEESHIPS/COLONIAL/INDEPENDENCE  
AMG GENERAL & MISCELLANEOUS

EU EUROPE

EUM MEMBERSHIP  
EUC CYPRUS  
EUR GENERAL & MISCELLANEOUS  
EUT TRUSTEESHIP/COLONIAL/INDEPENDENCE

AS ASIA

ASM MEMBERSHIP  
AST TRUSTEESHIP/COLONIAL/INDEPENDENCE  
ASG GENERAL & MISCELLANEOUS

PA PACIFIC (AUSTRALIA, NEW ZEALAND, ISLANDS)

PAM MEMBERSHIP  
PAT TRUSTEESHIP/COLONIAL/INDEPENDENCE  
PAG GENERAL & MISCELLANEOUS

AF AFRICA (NON-ARAB STATES)

AGF GENERAL MISCELLANEOUS  
AFI TREATMENT OF INDIANS IN S. AFRICA  
AFM MEMBERSHIP  
AFT TRUSTEESHIP/COLONIAL/INDEPENDENCE EXCEPT S.W. AFRICA  
AFA APARTHEID IN S. AFRICA (RACISM ELSEWHERE IN AFRICA)  
AFN S. AFRICA & S.W. AFRICA DISPUTE (NAMIBIA)  
AFR SOUTH RHODESIA  
AFP PORTUGUESE COLONIAL AFRICA  
AFC CONGO CRISIS  
AFS SOUTH AFRICA IN GENERAL

OTHER CODES

SEA SEA ORIENTED RESOLUTIONS  
NAO NOT AREA ORIENTED/UNASSIGNED/UNKNOWN